Research: Things to Do List

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Things to do

1. Reproduce results in Binder et al., 2016 paper for standard variable selection case and also for high-dimensional case for binomial model - for lasso, elastic net and adaptive LASSO
    - Look at data generation process - if necessary email authors for script
    - Replicate to a t- 1000 simulations on compute canada
    - Check if using lambda.min or lambda.1se - BY THIS WEEKEND FOCUS ON REPRODUCING BINOMIAL MODEL RESULTS FIRST
    - Look into how to reproduce the block correlation structure
2. Data generation process for my simulations - look at Tapak et al., 2022 decide on a final function and finalize - test this function: test high-dimensional cases
3. Sampling weights for the likelihood for non-cases: figure out how to implement, adaptive LASSO for casebase
4. Prediction error - figure out how to compute for casebase
5. Implement all competing models: cause-specific hazard models, boosted fine-gray, non-parametric (Tapak et al., 2022), quantile regression for competing risks, binomial model, penalized fine-gray model
6. Look into case-base sampling further- math details + oracle property of adaptive LASSO

Simulation settings

- High-dimensional (p = 1000, N = 400, 500)
    - Independent, AR1 correlation structure, block correlation structure